

Remarks

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Applicant has enclosed with this amendment a Petition for Extension of Time under 37 CFR 1.136(a) to make this response timely.

Claims 1-13 & 15-17 are currently pending. By this Amendment, all three independent claims 1, 7, and 12 have been amended to particularly point out and distinctly claim the subject matter of Applicant's invention. Applicant respectfully submits that no new matter has been added by this amendment. Applicant believes that no additional claim fees are due, since by this Amendment, one claim (#14) was cancelled and one new claim (#17) was added.

In Paragraph 1 of the Office Action, the Examiner stated that a claim for foreign priority must be made in this application, and that the requirement for the certified copy of the foreign application can simply be made by identifying the application containing the certified copy.

Applicant submits that on page 1 of the original specification, entitled "Cross Reference to Related Applications", the priority claim to French patent application number 0009803 was made. The original Declaration also claimed foreign priority to the same French patent application, and the Official Filing Receipt of the present application properly recites the foreign and domestic priority data as claimed by Applicant: "Continuing Data: This application is a CIP of 09/902,748 07/12/2001" and "Foreign Applications: France 00,09803 07/13/2000".

A certified copy of the French foreign priority application can be found in the file history of the U.S. parent application number 09/902,748. Applicant respectfully requests notification if additional information is required to meet the foreign priority requirements for the present application.

In Paragraph 2 of the Office Action, the Examiner objected to the missing “Background of the Invention” and “Brief Summary of the Invention”, and required appropriate correction. Applicant has made corresponding corrections to the section headings of the specification in response to this objection.

Regarding the Amendment made to Paragraph 0007 of the specification, Applicant submits that this amended language is more clear and consistent with the language that starts Paragraph 0008: “For this purpose, ...” The remaining amendments to the specification address minor typographical and grammatical errors. Applicant submits that no new matter has been added by these amendments and respectfully requests the Examiner’s approval of all these changes to the specification.

In Paragraphs 3 & 4 of the Office Action, the Examiner has rejected claims 1-16 under 35 U.S.C. 102 as being anticipated by Hauet (U.S. Patent Number 6,799,077).

With respect to claim one, the Examiner stated that Hauet discloses a programmable logic controller (figure 3, section 17 automatic controllers) and a backplane of a programmable logic controller (section 19, local area networks); one or more modules connected to the backplane (figure 3, section 18, I/O units); modules capable of communicating over the backplane using the IP protocol (see col. 5, lines 62-66). Applicant respectfully traverses in this rejection, particularly in view of Applicant’s amended claims.

The Hauet patent describes a time-shared communications architecture for an industrial process control system. As shown in figure 3 of Hauet, most of the I/O units 18 (labeled “site units”) are provided with an individual HTTP server 9. In describing this figure, Hauet states at col. 5, lines 58-62, that: “The units are individually provided with HTTP servers, and have Internet-type addresses, the communications couplers that they include comply with the HTTP/TCP/IP protocols and services in addition to the standard services and protocols of the industrial local area networks used.” Applicant is not sure whether “intermediate units 17” or

“site units 18” are being described here. Nevertheless, these HTTP servers are designed to be compatible with the TCP/IP protocol for lower-priority, event-based “messaging” traffic, as well as higher-priority “deterministic” traffic for data exchange over the local area network “site bus 19”.

First, Applicant submits that Hauet does not disclose a “backplane” as that term is commonly known in the art with respect to programmable logic controllers. The word “backplane” does not even appear in the Hauet patent. Moreover, Applicant has amended claim 1 to further clarify that its claimed programmable logic controller comprises “a backplane having an internal communications bus for connecting one or more modules of the programmable logic controller with each other”. This specific definition of backplane is clearly not taught or suggested by Hauet.

When rejecting the backplane language of Applicant’s claim 1, the Examiner generally points to “section 19, local area networks”. Hauet states, in col. 5, lines 43-50, that:

“In the example considered with reference to FIG. 3, provision is made for the site units 18, 18', 18", 18"', 18"" to be organized in one or more clusters around *at least one individual cluster local area network such as 19, 19', or 19", generally referred to as a “site bus”*. In this example, the cluster network is connected to a programmed operating unit of intermediate level assumed, for example, to be constituted by a controller 17, 17', or 17". *(Italics added)*

Hence, individual “site clusters” of local area networks 19 are really only a “site bus” that is connected to a controller. Hauet does not disclose how or where it is “connected”. Hauet does not state that one or more modules are connected to any backplane of any controller. To the contrary, Figure 3 shows that any of the site units 18 are not connected to an internal communications bus of the controller 17, since local area network 19 is an external communications bus. Clearly, the site units 18 are not shown in figure 3 to be modules comprising Hauet’s controller 17.

Second, Applicant respectfully submits that Hauet does not disclose any type of a local addressing schema for assigning the IP address for each module as now recited in Applicant’s

independent claims. The Examiner refers to the language of Hauet col 5., lines 58-66, when rejecting this limitation formerly found in Applicant's dependent claim 2.

As set forth above, Hauet states at col. 5, lines 58-66, that:

“The units are individually provided with HTTP servers, and have Internet-type addresses, the communications couplers that they include comply with the HTTP/TCP/IP protocols and services in addition to the standard services and protocols of the industrial local area networks used. The units are thus capable of transmitting and receiving IP datagrams which are, for example, encapsulated in messages conveyed in the context of standard messaging traffic, via the local area networks such as 19 and 20, without disturbing the deterministic traffic for interchanging variables that is conveyed via the networks.”

This section simply states that some “unit” (Applicant is still not sure whether “intermediate units 17” or “site units 18” are being described here) has an HTTP server with an “Internet-type protocol”. It does not describe how any IP address is determined or assigned. Applicant submits that this language, nor any other language in Hauet, teaches or suggests that the modules of a PLC are assigned IP addresses using a local addressing scheme for communicating over the PLC backplane.

In the remaining paragraphs of the Office Action, the Examiner recites various sections of Hauet when discussing the remaining rejections of Applicant's various claims. However, Applicant has amended independent claims 7 and 12 to include similar “internal communications bus” backplane clarification and the “local IP addressing schema” limitation to those independent claims. Thus, Applicant respectfully submits that the same arguments set forth above apply to those independent claims. Moreover, all the dependent claims would therefore include each of those clarifications and limitations. Therefore, Applicant respectfully submits that dependent claims 2-6, 8-11, 13, and 15-16 are also patentable over Hauet.

New dependent claim 17 recites the industrial automation system of claim 15 wherein the system is adapted to monitor the operation of a device on the I/O network connected to said first network module, by a user at a remote location on the Internet connected to said second network module, via messages formatted using the IP protocol and communicated between said first and second network modules over said backplane. This claim is directed towards Applicant's

Figure 4, and is supported by Paragraph 0036 of applicant's specification. Moreover, since claim 17 depends on claim 15 and includes each of its limitations, Applicant respectfully submits that this is also patentable over the prior art.

Conclusion

In light of the foregoing Amendments and Remarks, Applicant respectfully submits that all claims are now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date 11/30/2007

Schneider Electric USA
1415 S. Roselle Road
Palatine, Illinois 60067
Telephone: (847)925-3459

By Douglas A. Boehm

Douglas A. Boehm
Attorney for Applicant
Registration No. 32,014